

**REMARKS**

Claims 1-10 were pending at the time of the Office Action dated July 21, 2008. Claims 6-10 were withdrawn from consideration. In this Amendment, claim 1 has been amended to clarify an aspect of the invention and new claims 11-14 have been added. Support is found in, for example, Fig. 5 and corresponding descriptions. Claim 1-14 are currently pending for examination.

**Rejections of Claims Under 35 U.S.C. § 103**

Claims 1-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nose et al. (U.S. Patent No. 6,819,311, hereinafter “Nose”), in view of Kudo et al. (U.S. Patent No. 6,781,605, hereinafter “Kudo”). Claims 1-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwon et al. (U.S. Patent No. 6,947,043, hereinafter “Kwon”), in view of Kudo. The rejections are respectfully traversed for the following reasons.

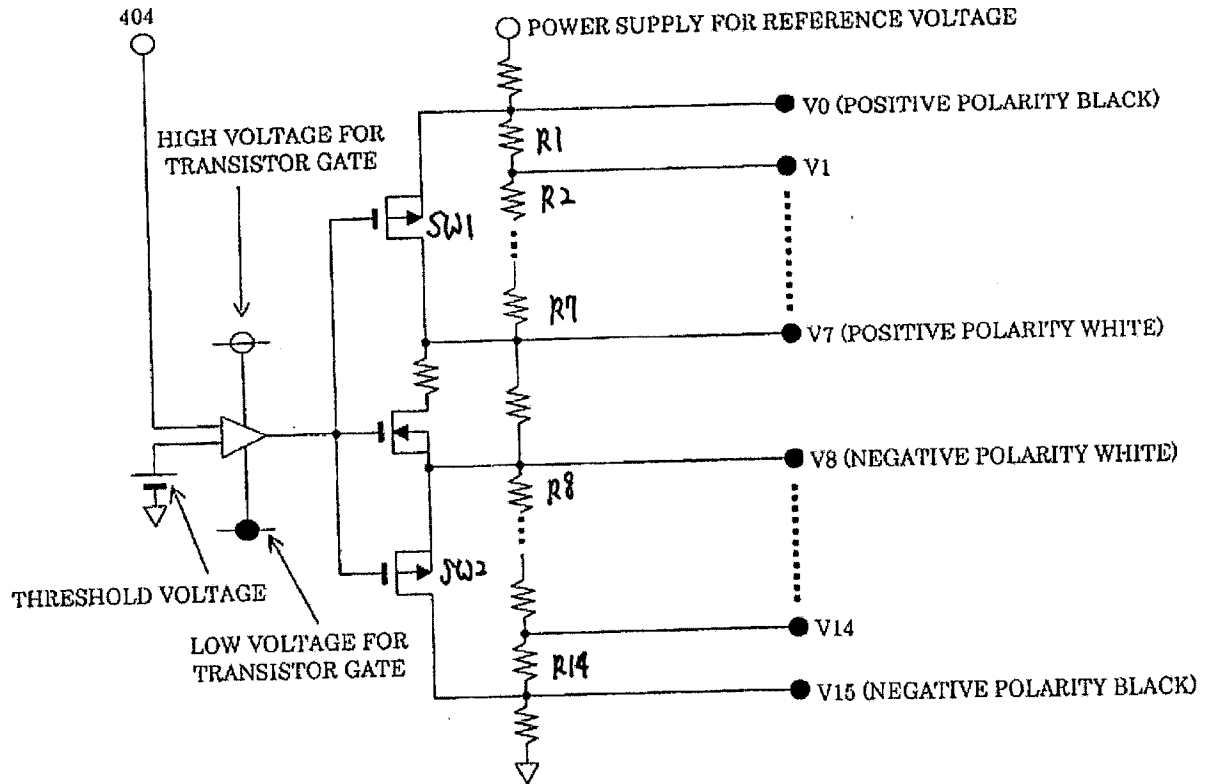
Amended claim 1, in pertinent part, reads as follows:

“the reference voltage generator circuit has a switch section which is opened and closed by a black voltage selection signal, and

the switch section has first switching elements arranged in parallel to the first registers so as to open and close between a connection point for generating a black voltage and a connection point for generating a white voltage among the plural image display voltages, and second switching elements which are arranged so as to control resistance values of the second resistors and which have polarities to those of the first switching elements, and outputs a black display voltage to the plural wiring lines by turning the first switching elements into closed states, and turning the second switching elements into opened states, on the basis of the black voltage selection signal to short-circuit between the connection points and to change resistance values of the second resistors.”

As disclosed in Fig. 5(reprinted below), the switching element SW1 connected in parallel with the resistors R1-R7 and the switching element SW2 connected in parallel with the resistors

R8-R15 change resistance between the points V0 and V7 and resistance between the points V\* and V15 depending upon open and close status of the switching elements SW1 and SW2.



The proposed combination of Nose, Kwon and Kudo fails to disclose the limitations of claim 1.

As admitted by the Examiner on pages 3 and 6 of the Office Action, Nose and Kwon fail to disclose the first and second resistors. The Examiner, however, refers to Kudo as disclosing the first and second resistors. Kudo's ladder resistors 411 generates plural reference voltages by dividing the voltage difference between the high level reference voltage  $V_H$  and the low level reference voltage  $V_L$  to thereby generate gray scale voltages  $V_0 \sim V_{63}$ . Kudo's ladder resistors 411, however, are not connected with any switching element in series and in parallel. In

contrast, claim 1 requires the “first switching elements” to be “arranged in parallel to the first registers so as to open and close between a connection point for generating a black voltage and a connection point for generating a white voltage among the plural image display voltages,” and the “second switching elements” to be “arranged so as to control resistance values of the second resistors.”

Accordingly, as each and every limitation must be disclosed or suggested by the cited prior art references in order to establish a *prima facie* case of obviousness (*see*, M.P.E.P. § 2143.03) and for at least the foregoing reasons the proposed combination of APA, Nose, Kwon and Kudo fails to do so, it is respectfully submitted that claim 1 and claims dependent thereupon are patentable over the combination of Nose, Kwon and Kudo.

New claim 11 recites the substantially same limitations as claim 1 regarding “the switch section has first switching elements arranged in parallel to the first registers so as to short-circuit a connection point for generating a black voltage and a connection point for generating a white voltage among the plural image display voltages, and second switching elements which are arranged so as to control resistance values of the second resistors and which have polarities to those of the first switching elements, and outputs a black display voltage to the plural wiring lines by turning the first switching elements into closed states, and turning the second switching elements into opened states, on the basis of the black voltage selection signal to short-circuit between the connection points and to change resistance values of the second resistors, on the basis of the black selection signal, in the positive polarity and negative polarity respectively.”

Therefore, claim 11 and claims dependent thereupon are patentable over proposed combination of Nose, Kwon and Kudo.

**Conclusion**

Applicant submits that all of the claims are in condition for allowance. Accordingly, this case should now be ready to pass to issue; and Applicant respectfully requests a prompt favorable reconsideration of this matter.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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